

Supporting Information

Metabolic activation of nonpolar sediment extracts results in enhanced thyroid hormone disrupting potency

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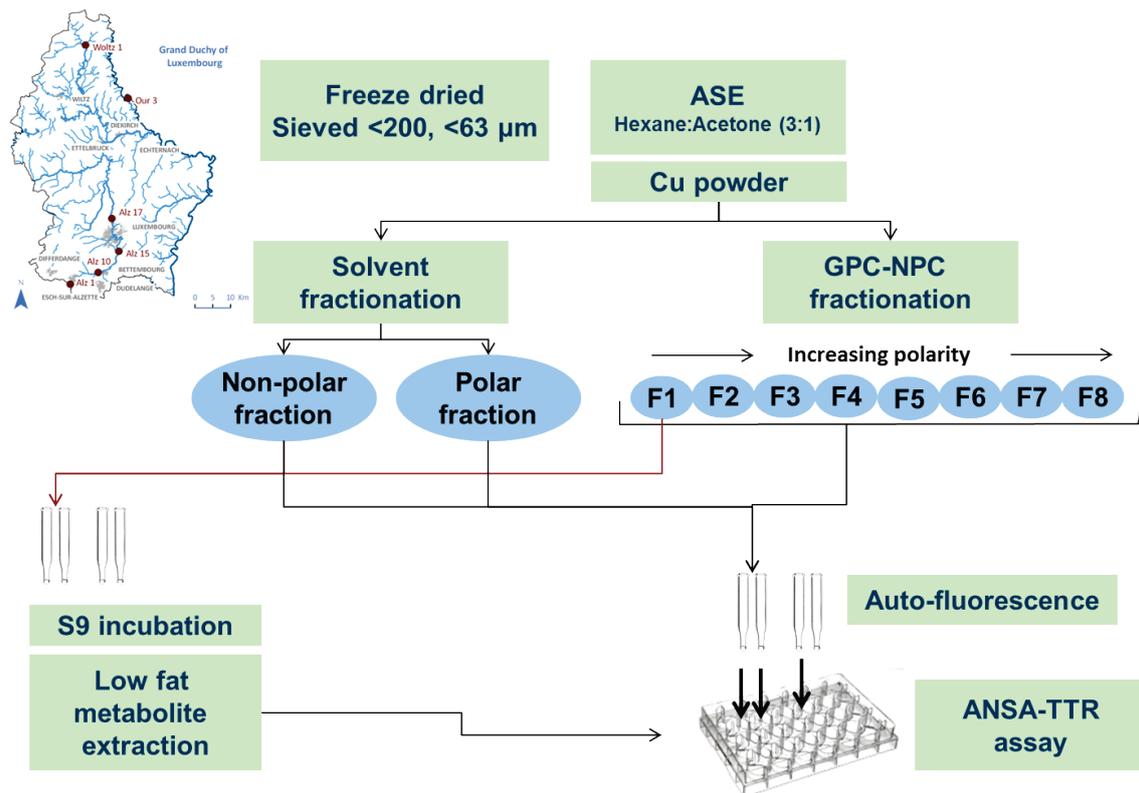


Figure S1 Graphical representation of the extraction, fractionation and testing strategy.

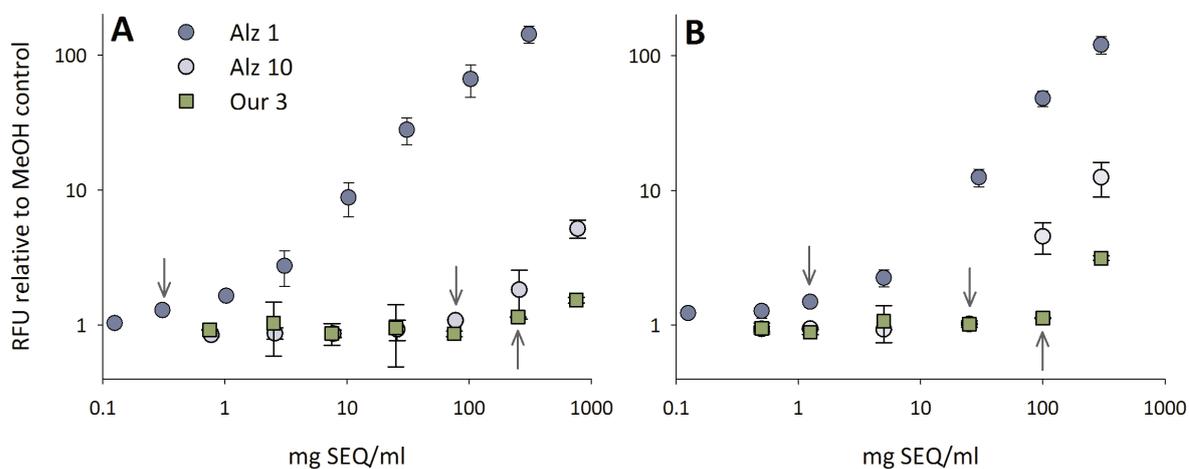


Figure S2 Background fluorescence in cleaned nonpolar (A) and polar (B) sediment extracts prepared with solvent partition. Data represent the relative fluorescence units (RFU) (380nm excitation and 475nm emission) relative to the control solvent (MeOH) (set to one) \pm standard deviation from two independent experiments performed in triplicate. The arrows indicate the maximum concentration tested in the ANSA-TTR-assay (also see Table 1).

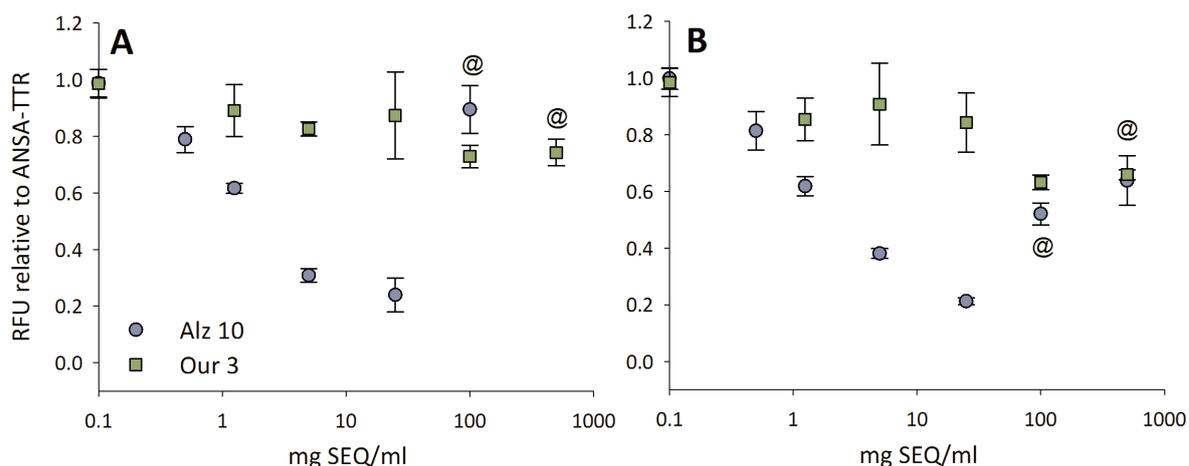


Figure S3 TTR competitive dose responses from sediment solvent fractions. Non-auto-fluorescent dilutions of nonpolar (A) and polar (B) solvent fractions in the ANSA-TTR assay as relative fluorescence units (RFU) relative to the solvent control with ANSA and TTR set at one. Responses with background fluorescence (above given in Table 1) are indicated with @. The data represent the average \pm standard deviation from two independent experiments, measured in triplicate. The zero value corresponds to maximum replacement by 600 nM T4 in the MeOH control.

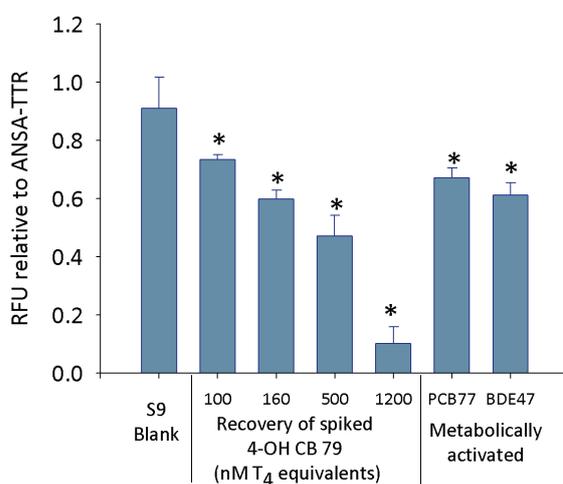


Figure S4 ANSA displacement from TTR by metabolic incubation controls. DMSO-spiked S9 blank, spiked 4-OH CB 79, and metabolically activated CB 77 and BDE 47 were incubated with rat S9 liver fraction from which the metabolites were extracted, cleaned and transferred into MeOH for measurement in the ANSA displacement assay at a final concentration of 0.5 mg-Eq protein/mL. Data represents the relative fluorescence units (RFU) \pm standard deviation from at least three independent experiments with duplicate S9-incubations, measured in triplicate. Maximal

fluorescence without inhibitor is set at 1, maximal displacement by 600 nM T4 is set at 0. * is significantly different from control ($P<0.05$).